

### **AMENDMENTS TO THE SPECIFICATION**

Please substitute the following for the second paragraph of Page 9:

The method and apparatus of the present invention is now described with reference to **Figs. 7a through 9b**. **Fig. 7a** illustrates the concept of the invention from the perspective of the output port **84** of a first band-pass resonator filter **72**, which is coupled to a load (typically 50 or 75 ohms), for example, a passive mixer **56**.  $R_O$  **70** represents a typical impedance of a source providing input voltage  $e_i$  **71** (typically 50 or 75 ohms) to which the output impedance of filter **72** is preferably matched. The series resonator formed by  $L_I$  **74** and  $C_I$  **76** is designed to have a transfer function that is roughly a dual of resonator filter **72** such that the series resonator becomes a short-circuit in the pass-band of resonator filter **72**, and an open circuit in the stop-band of filter **72**. In one preferred embodiment of the invention, a second band-pass resonator filter **80** is coupled to port **84** (through isolation resistor  $R_I$  **78**) that is identical to the resonator filter **72** in structure and transfer characteristic. Both resonator filters have a parallel (shunt) structure and are therefore short-circuits in the stop-band, and are "on" and thus couple source and load impedances to their outputs in the pass-band. Resonator ~~[[82]]~~ **80** is terminated to ground with a load resistor that is equal to  $R_O$  **70**.

Please substitute the following for the second full paragraph of Page 10:

**Fig. 9a** illustrates an alternate preferred embodiment that is somewhat simpler and can be employed when there is not significant energy in the frequencies around the on-frequency of the resonator filter **72**. The resonator filter **72** is the same as in **Fig. 8a**, but the resonator **80a** in **Fig. 9a** has been truncated to only one resonator, rather than two in parallel as in the resonator **80** of **Fig. 8a**. Although the characteristic of the resonator **80a** in **Fig. 9a** will no longer be as sharp as that of resonator filter **72**, it is good enough provided the resulting relaxed matching does not

create problems for signals in the frequency for which matching has been degraded. **Figs. 9b** and **9c** illustrate the equivalent circuits for the circuit of **Fig. 9a** in the pass-band and stop-band respectively of the resonator filter **72**. The difference between the circuits of **Figs. 8a** and **9a** is that **80a** is no longer terminated, and is replaced by a resistance  $R_{P-loss}$  **88** that represents the resistive loss while resonator **80a** is resonating. Provided there are no significant components falling within the frequency ranges **90**, the degraded impedance matching occurring as a result of the simplification in resonator **80a**.